Agriculture Workgroup Face-to-Face Meeting Minutes
February 20th, 2020 from 10:00 AM - 3:00 PM
Meeting Materials: Link

Workgroup Areas of Focus

Accounting & Reporting ● Implementation ● Innovation

Data & Modeling ● CBP Assignments

Summary of Actions and Decisions:

- **Decision:** AgWG approved January meeting minutes.
- **Action:** AgWG members are asked to contact Gary Shenk (gshenk@chesapeakebay.net) with feedback regarding ag modeling inputs past 2025. See presentation.
- **Action:** Mark Dubin and Tim Sexton will come back to AgWG at later date with more information on changes in frost date in relation to cover crops based on today's discussion.
- **Action:** The AgWG will review the CBP response, when available, to the published STAC Workshop on contaminants of concern in ag settings and provide feedback to Scott Phillips.
- **Action:** Provide feedback to Emily Trentacoste (trentacoste.emily@epa.gov) regarding her proposed project to utilize previous and ongoing work identifying geographic locations of interest for meeting other goals and outcomes of the 2014 Chesapeake Bay Watershed Agreement. Emily will come back to the group at a later date with project updated.
- **Decision:** The AgWG approved with full consensus the six at-large members for the 2020-2021 term.
- **Decision:** The AgWG approved Gary Felton as Chair of the AgWG for the 2020-2021 term.
- **Action:** Email Allie Wagner (wagner.alexandra@epa.gov) and Loretta Collins (lcollins@chesapeakebay.net if interested in joining an ad hoc group charged with clarifying issues related to implementation, tracking, crediting, and verification of stream restoration practices on non-urban lands. A call is scheduled for March 3rd.

10:00 **Welcome, introductions, roll-call, review meeting minutes** *Workgroup Chair*

- Roll-call of the governance body
- Roll-call of the meeting participants
- Approval of meeting minutes from the Jan 16th Conference Call

Decision: The AgWG approved the January meeting minutes.

10:05 **Welcome to New CBP SAIB Chief (5 min)**

Lee McDonnell was named as the new Chief of the Science, Analysis, and Implementation Branch in the Chesapeake Bay Program Office (CBPO), starting shortly after the new year.

Summary

Lee McDonnell introduced himself. Before this, Lee worked for PA DEP and he is excited to work with everyone. Lee is interested in water quality modeling and would like to put our modeling data at the forefront and use that information as our report card.

Innovation

10:10 **Animal Mortality Expert Panel Update (5 min)** *Doug Hamilton*

Expert Panel Chair Doug Hamilton, Oklahoma State University, will provide an update on progress of the Animal Mortality Expert Panel.

Summary

The report should be completed by March with roll out occurring in April for the AgWG meeting. However, there are still a few items that they need more data on and we are working on creating a cohesive report. The mass mortalities in nitrogen and phosphorous are broken into 4 sections: poultry, swine, cattle, and horses. The break down is by mass per head (total mass for a given unit that is reported by jurisdictions in the model; ex. cow will be per cow in the herd). We also try to give mass per animal unit for each one of the species so you can compare horses to poultry. Additionally, we will compare for each type of animals (ex. nutrient from carcasses vs. nutrients from manure). In the next part of the report we look at the nutrient flow from different disposal methods. From this 5 disposal methods are highlighted: burial, composting, incarnation, landfill, and rendering. The 3rd section of the report focuses on storage and transport issues, specifically problems with moving carcasses over distances and effects on downstream practices when storing / freezing. Lastly, the report examines the rules in each states. So far, we have discovered it is not obvious who is in charge for animal disposal. We plan on summarizing exactly who has jurisdiction over carcass disposal.

Questions

Barry Frantz: I have a few engineering questions regarding design of animal mortality facilities- how do you handle the material that comes out of it? Is it meant to be factored into a nutrient management plan? How do you expect people to use this information?
Hamilton: all this will help a nutrient management plan. One of the things that we wanted to do, from a nutrient standpoint is figure out how much you can expect a carcass disposal will add to a nutrient management plan. Most carcasses that go through incineration or application, or burial, have effect on ground and water.
Keppler: are those loads currently modeled? How would they be managed in the model?
Shenk: since the model is calibrated to data, the loads are in the model already they are just not calibrated to certain animals. We are always trying to count each BMP and correctly account for them. Perhaps animal mortality would be a specific loads source.
Hanson: So, our marching orders are for us to tell you what we can about carcasses and for this version of the model figure out how to count it as a feed space.

CBP Assignments

10:15 **Chesapeake Bay Program 2025 Climate Assessment for the TMDL (50 min)** *G. Bhatt & G. Shenk*

At the direction of the Principals' Staff Committee (PSC), the Modeling Workgroup has completed a year of analysis to assess the additional effort that is required for water quality standards attainment due to climate change between 1995 and 2025. Gopal Bhatt, Penn State, and Gary Shenk, USGS, will provide an overview of the process and the climate effects that were modeled and a summary of most up to date results for the CBP's assessment of future load changes due to climate change and other watershed trends, with an emphasis on the agricultural sector. Estimated impacts of climate change and other watershed trends response on the flow, sediment and nutrients for 2025, 2035, 2045, and 2055 will be presented. A discussion with the AgWG on results of the modeling assessment, with particular emphasis on Ag forecasting, is anticipated.

Summary

TMDL is based on hydrology centered on 1995 with an end date of 2025. So, we are looking at climate change in that 30 year period of this long term trend (how has the average hydrologic condition changed?). In 2018, this decision came from the PSC and the Modeling Workgroup developed climate scenarios in 2019 with input from CRWG and WQGIT.

Components of Climate Change in the model:

- Watershed Model: increased precipitation volume, increase in precipitation intensity, and increase in temp and evapotranspiration;
- Water Quality Sediment Model: increase watershed loads, increase temperature, increase sea level rise, increase watershed flows (increase sea level is good news for dissolved oxygen in the bay (deeper bay, takes a while for increases in temperature to affect water and would also change salinity, which also affects dissolved oxygen);
- BMP effectiveness change- not included but important (there is a plan to get some information by 2025 on how to incorporate this into the model);
- Stream to river factors: in the model they are responding to increased loads, the additional scour from increased loads is not included in the model. This is why it's both.

Ag- related topics in the model (slide 14 of Shenk and Bhatt's PowerPoint):

- Carbon dioxide effect on evapotranspiration: the plant would not open as wide so not as much water would evaporate (more CO2 decreases transpiration); greater surface runoff and soil losses would mean higher P loads; faster soil depletion (but decreases the overall climate effect by 10-20%).
- Effects on Ag: the literature points to increased stress from droughts , extreme precipitation, temperature effects both positive and negative; northward migration of crops- but there is no specific way to cover this in the model. However, we already know the trends from 1987-2017 so we can project them to 2025, but when we look farther out (35 /45 /55) we don't have any methods for estimating the climate effects. If AgWG has any ideas, please share.
- BMP effectiveness change: literature points to decreased performance, but not enough information. PSC directed the MB to develop a better understanding of BMP effectiveness change by 2025. The Water Quality GIT and Climate Resiliency WG are working on projects (ex. STAC BMP Project: climate change effects on BMP performance with an emphasis on ag BMPs, but also evaluating urban and natural).
- Other Projects: Urban Stormwater WG is working on a GIT-Funded project to pilot the development of probabilistic intensity duration frequency curves for Chesapeake Bay Watershed. Additionally, CSN is looking at BMP climate change.

Climate Change in Watershed:

- Estimated Water Quality Responses: rainfall volume and temperature, rainfall is winning. Climate change effects in edge river loads (% change with respect to delivered loads under 1995 climate) is looking at flow, N, P, and sediment in three different sectors: agriculture, developed and natural, and stream b&b. In general, there will be less retention / losses of nutrients in rivers. By simulating changes on land and river we saw that nutrients are lost in the river due to storage or denitrification. However, increased rainfall and temperature are causing more loads to be directed into the Bay. There is also an estimated increase in population, and this will affect the land use (crops, pasture, developed). This means there will be an increase in developed land and decrease in crop and pastureland. This is based on the Ag Use Census (2021 Ag census which was projected to 2025 and held constant to 2055- there is a slight decrease and that's because when Peter Claggett modeled, the increase in developed land makes it look like it is decreasing).

Climate change in Estuary:

- There is an estimated 0.22m sea level rise, 1.06 degree temperature increase on surface of estuary. The Estimated Bottom DO change 1995-2025, keeping all other factors constant, will see sea level rise and increased watershed flow, which will reduce hypoxia in the Bay. However, the predominant influences are the negative impacts on increased water column temperature. This information is used to determine the load increase based on climate change effort increase (the WQGIT looked at 96 different allocation methods). As we go forward it is going to get harder to meet these water quality standards.

The WQGIT is going to make recommendations to the MB and PSC for how to handle climate change. The AgWG may want to engage in updating forecasting methods to incorporate climate change effects.

Questions

Brosch: slide 24: does this account for the 5.11% or is because Agriculture is more than half the acres?
Bhatt: these runs were all based on 2025 land use, the only thing that is changing is due to the effect of climate. So, land use is not changing. But Ag has bigger portion of load to begin with and that is why it has bigger share of load later on. Both sectors are responding to different changes in hydrology. This is just looking at the percentage of load that each sector will have.
Keppler: was increased temperature on small streams modeled?
Shenk: we are not directly modeling those streams, but there is an effect on those streams on the large rivers.
Staver: what you're saying is that phytoplankton don't have much effect, but we have to use something to offset the loads.
Shenk: if you are just looking at temperature change and ocean, but you include the increase in loads, there will be a greater effect on oxygen than temperature. If we walk back the loads, we take care of most of the problem. There is a temperature and nutrient effect on phytoplankton, but in the Bay, it is predominantly the loads.

Action: AgWG members are asked to contact Gary Shenk (gshenk@chesapeakebay.net) with feedback regarding ag modeling inputs past 2025.

Data & Modeling

11:05 **Ag Census & Land Use: A Review (30 min)** *Peter Claggett*

Peter Claggett will review the methodology for incorporating data from the Census of Agriculture into the Phase 6 land use and present a comparison of the updated 2019 Milestone land use with the land use data used for Phase III WIP development.

Summary

The data looks at overall land use change and will be out for review in March (2020). 2019 is the update period and significant because it includes the 2017Ag Census. This also includes population estimates, population projections, protected lands, sewer service areas, and MS4 boundaries. In the Ag Census provides a total amount of acres within the county. We adjusted all the land use according to the 2012 Ag Census error rates. True- up methodology is supposed to help mitigate some of the errors in the data- once you balance the errors in the Ag Census and mapped land uses using the true-up method you have better agreement between the two and get a strong linear relationship with a slope closer to 1. True-up methodology is consistent from 1995 to 2025 and it achieved the desired results of producing a strong 1-1 linear relationship with the Ag Census. This methodology also follows CBP protocols and decisions about introducing new data and methods.

Future Presentation(s) in 2021- 2022: Improvements to future versions of the land use will further minimize discrepancies between the census and CBP high- resolution land use datasets. Timeframe: completed by end of next summer (2021). Would be incorporated in the 2022-23 milestones.

Questions

A question on pasture and hay was brought up. Peter Claggett said that they see the biggest discrepancies in the western and northern part of the watershed. He also mentioned that they don't have a table for corn and soy rotation. Additionally, Peter mentioned that there's a lot of pasture, but that they had been mistaking forested land for corn. He also mentioned that the challenge has been determining in great natural succeeding haying with no fertilizer- is it corn, or soy rotation? Lastly, Peter mentioned that they will begin to map orchards and solar fields explicitly (the linear pattern of these helps differentiate them from other land uses).

11:35 **BREAK (10 min)**

Implementation

11:45 **Farmer Spotlight (30 min)** *Lee McDaniel*

Lee McDaniel is the owner and operator of Indian Spring Farm, an 800+ acre grain and hay operation in Harford County, MD. Mr. McDaniel has served as Harford Soil Conservation District Board Chairman for over 20 years. He is a member of the Deer Creek Watershed Association, a former Board of Trustee of Harford Community College, and past President of both the National Association of Conservation Districts (2015-2017) and Maryland Association of Conservation Districts (2005-2008). Mr. McDaniel will share some of his insights on conservation progress to date and opportunities he sees to continue making progress into the future. Questions and discussion are strongly encouraged.

Summary

There are 4 major areas the general public is interested in: health, education, financial stability, and safety. Other things like conservation, climate change, taxes, etc. fit into one of these categories. In the country there are 3,000 conservation districts and each one provides a different perspective. Some of the national issues that conservation districts are dealing with are wildfires, invasive species, floods ,drought, saltwater infiltration, sea level rise, depleting aquifers, public land management, conservation on tribal lands, endangered species, hypoxia, wind and water erosion, soil health, acid mine drainage, wild horses, and feral hogs.

4 Perspectives in Chesapeake Bay:
- Technical: how are we measuring the issues and what are we measuring?
- Use the Bay: swims in the Bay, fishes in the bay, etc.
- Non-usage: thinks the Bay as a garden; admire from a distance but don't touch anything
- Family: think of the Bay as their family (the wildlife etc.)

These 4 perspectives don't always get along and get upset because each group has a different set of priorities. If we only focus on our group, then we might miss something important. Additionally, sustainability is important and profitable for farmers because it means they can sustain themselves (soil health, etc.). So, thinking from a different perspective- what if they bay was upside down? MD and VA had the economic benefits, PA doesn't have the economic benefits, and NY is so far north that anything that occurs there will filter itself out. Here in PA we have DE, Ohio, and Lake Erie watersheds. So, in PA we can't put all our eggs in one basket. On the political side most legislature comes from Pittsburgh and Philly and they predominantly look at the Ohio Watershed. I think we should refocus and have each state look at watershed based projects instead of state based projects.

Questions

Collins: we are trying to champion local waters- is that a strong argument to help get people involved?
McDaniel: getting people interested in water health and soils.
Collins: do you have any insights in what can be done better in terms of supporting the conservation districts- what can we be doing better with engagement? Comparing with national experience?
McDaniel: don't just look at conservation districts for what they can do for agriculture- there are a lot of things to be done in other sectors. Their roots are in agriculture, but that's not what they might be doing now. Find what areas are underserved in conservation districts (ex. food deserts, etc.). Didn't have a program for public land management- BLM is a top down approach but conservation districts are getting more involved in the bottom up approach.
Collins: soil health is a buzz word here, but it's hard to insert soil health into the modeling. Not sure how to incorporate this better.
McDaniel: there is a group founded by the Noble Foundation and there is a Soil Health Institute- it's not just what it does with agriculture- healthy soil helps with stormwater runoff, it helps with productivity and it's environmentally friendly to farms. It all depends on what your perspective is. My concern is that we may reach our goals, but there will probably be some groups that still won't think the Bay is clean because of their perspective.
Keppler: Lee, you mentioned that Chesapeake is a model for other areas, are there other examples in the country that we should be looking at as an influence?

McDaniel: we are the leaders and people are looking at us because we are 20-25 years ahead of the country.
Staver: The soil institute did a census and MD was number 1 and 2 in cover crop and no- till.
McDaniel: Soil Health Institute has some resources that we could tap into (ex. species of cover crops planted). You don't need to scavenge the nutrients if you are growing the nutrients. This could be an area of improvement.
Keppler: we have a lot of resources within the watershed too. It's important to continue to leverage our resources.
McDaniel: my way of thinking of the diet: you limit your intake but the second part is exercise and we could do more to look at the second half (oysters, fisheries etc.).
Cassilly: do you know of any other places in the country where there is farmer to farmer mentoring?
McDaniel: I can't think of anything specifically, but there is also district manager to district manager mentoring that is going on. Conservation districts are going to become more important in the future because they are locally led, and they know the land and people.
Shenk: we are trying to build a technical network to help support the districts, but a lot of them lose staff and funding- how do we make sure this locally led model stays the long haul and is a continued resource for farmers?
McDaniel: there is a lot of challenges with this- we have talked about how we are going to address the need for getting qualified people for these jobs. NRCS has a boot camp, but there needs to be the technical level at local high schools and community colleges to get people interested.
Tharpe: Harford has an Ag Magnet School for high schoolers (North Harford county added another class, so they will have over 400 kids in the ag program).

12:15 **LUNCH: BYO (30 min)**

Data & Modeling

12:45 **Revisiting Cover Crop Planting Dates (30 min)** *Mark Dubin*

Based on a jurisdictional request, Mark Dubin, UMD, will discuss shifting frost dates based on changes in weather patterns related to climate change. The AgWG will be asked for input on the potential impact of this shift on cover crop planting dates on the ground and as defined in the Phase 6.0 Watershed Model.

Summary

Keppler: Just to clarify- in the extra early I think you meant 17th September and not 17th October.
Dubin: Good catch! That's what I meant.
Staver: That's in the narrow definition of heat units. Heat units affect soil processes and grain drying too but in the narrow sense of the definition- are we seeing more heat units in the fall- it looks that way.
Scheider: I agree with you and to add on to that we don't have a robust cover crop program in PA. Are you willing to change the way that you're paying on your cover crops? I'm not exactly sure if you are using frost dates vs. heat units, but is the "juice worth the squeeze?" I mean you are looking at a week in dates. I don't have a preference either way.

Sexton: the districts are pushing for 45 days. I have districts harping to our Secretary that they want to plant after November and get $65/ acre. But the Secretary listens to the farmers instead of listening to the science.
Keppler: MD's payment structure is set up on this premise that we recognize standard and late planning and there is always political pressure that comes into play. Conversely, how does cover crop benefit from an earlier spring as well? Our MD extension suggested that we have enough heat units to start top dressing wheat earlier. Are there additional cover crop benefits from an extended spring period?
Staver: Well hopefully if it's a tight system and you have your cover crop planted early, what's there you've got and what you didn't get is gone. What happens in the spring is that nitrification in the soil starts earlier and if you don't have a cover crop nitrate levels go up, so your risk of leaching starts earlier in the spring because nitrification in the root zone picks up. So, this idea of cover crop growing longer keeps nitrates suppressed. It's a residual from last year and then the new coming on, so in case of ones for harvest their demand goes up so that's nutrient management. The warmer springs affect everything.
Dubin: VA Tech has been seeing similar things as well. However, they haven't observed the consistent trend in Spring like they have in the fall
Sexton: When they were established originally it had to do more with Hessian flies and when to plant small grain. When we started looking at this, cover crop picked up from there. So now, we are looking for is most benefit for keeping nitrogen from leaching past the root zone. It might be that our efficiency goes up for early planted cover crop and late planted cover crop could go down, we just don't know. The proposal is a recommendation to see how our efficiency's filter out and what should our new planting dates be based on the data from the land grant universities.
Dubin: Based on this, there is interest in the academic community to look at this from a different perspective - if we are looking at average first frost dates vs. heat units. This is also something for the group to think about in terms of how we might address climate change for the cover crop BMPs. We see just a few days difference right now, but the Modeling WG is looking a lot further- is this an opportunity for us to make adjustments based on changes in the weather? We are looking at a 30- year average which is a limitation because it will take a long time for a trend to show itself. Is this something that's going to be more relative to the weather we are experiencing? Or do we want to have something that's a 30-year constant. But this is why we wanted to bring this to the group and let you know that this is a question that's been raised, and we are working on bringing back a more robust overview and then we can have discussion on the direction we want to go.
Keppler: do you need anything from the WG at this time?
Sexton: at this point we are not looking for anything from the AgWG. The WQGIT is the one that asked so I contacted people who might be interested in this. We got a lot of data from a class A recording station. Currently we don't have data from DE, NY, and PA. So, the VA, MD deal- we are trying to incorporate all the land grant data we have in the area. We don't know if it's affecting the upper portion of the watershed like it's affecting the lower portion of the watershed. Since the GIT is the one that asked, they indicated that they may fund this project, but I have also looked at other sources of funding but was rejected so we will probably go with a GIT-funded project. We will come back and talk about it once we have more information.
Staver: I don't think the CBP has ever specified dates states use for reporting for cover crops. MD has dates because we give out money, but we were never told what dates to use. When VA reports early or extra early it's just based on data from NOAA. We've never gone through the exercise of determining what the dates should be for each state.

Sexton: if it's early it's more than 2-weeks prior to the frost. If you are reporting in NEIEN early planted cover crops, then they are assuming you can back up your planting date by this criteria. Standard means that it was planted within that 2-week frame up to the frost date.
Dubin: MD just has one set of dates even though there are a huge difference in heat units.
Frank: PA records cover crops differently because we don't have a program. Everything that we report goes into late planting and gets the least amount of credit.
Dubin: If you back to slide 38, those are the dates that are in the Phase 6 Watershed Model and they are in the definition of cover crops. If you are report to NEIEN and are doing early vs. late those are the dates that the Bay Program is using to represent cover crops in the model.
Shenk: those are used in the calibration in the model but when we track implementation those dates don't have anything to do with implementation unless you changed the definition of cover crops.
Sexton: what we talked about briefly is that window of what we would call early vs. late. There is a lot of discussion that those people would be discussing over the next 9 months about changing the efficiency.
Keppler: if there is some type of analysis or other sources to compare with the NOAA data- do you use the NOAA data for anything in the model that this process might help inform you guys outside of cover crops? Are you using growing degree days or heat units for anything else?
Shenk: We absolutely use temperature data in the model. So, it seems like a pretty straight forward calculation and we could do it pretty quickly.
Staver: I just did what I could do with the data we had in at the Wye. It's kind of arbitrary what I did- I just took the most recent 5 years and the earliest 5 years to see if there was any difference.

Action: Mark Dubin and Tim Sexton will come back to AgWG at later date with more information on changes in frost date in relation to cover crops based on today's discussion.

Innovation

1:15 **STAC Workshop Outcomes: Contaminants of Concern (30 min)** *Scott Phillips*

The final STAC Report titled "Integrating Science and Developing Approaches to Inform Management for Contaminants of Concern in Agricultural and Urban Settings" was submitted to the Bay Program's leadership on January 10th and a response has been requested on its specific findings and recommendations. Scott Phillips, USGS, will review the findings of the report that are focused on agricultural areas. Scott will also get feedback from the workgroup on the CBP response to the report.

Summary

The objectives of the workshop were to discuss contaminants related to fish consumption and identify sources, occurrence, and transport of contaminants in agricultural and urban settings. Most jurisdictions use local TMDLs to address toxic contaminants and most are PCB dominated. The main chemicals contributing to fish consumption are PCBs and Mercury, however there are still organochlorine pesticides and emerging contaminants that are of concern. The following are affecting fish health in agricultural areas: fish kills, low chronic mortality, skin lesions, and reproductive endocrine disruption, and increased susceptibility to infectious agents and disease (ag land use and chemicals present). Some of the science needs are longer term, for example monitoring to determine if practices are working (management actions to reduce exposure).

Some sources include pesticide usage, manure storage and application, biosolid application, irrigation treated wastewater and septic. There are opportunities to reduce contaminants through vegetative ponds and ditches to sequester some of the contaminants. However, any aquatic life living in pond would be affected. Another opportunity could be in manure management. In agricultural areas, the biggest science need is in prioritizing BMP implementation.

Next steps: STAC letter to CBP, now need CBP response to STAC.

- CBP action 1: enhance interaction with audiences for contaminant information (jurisdictions, WQGIT and WGs, local TMDL implementation, science providers)
- CBP response 2: take advantage of phase III implementation
- CBP response 3: enhance communication materials to inform decisions
- CBP response 4: compile results and expand BMP studies
- CBP response 5: selected BMP results into CBP tools

Questions

Phillips: we want to take advantage of already existing BMPs, like cover crops. Would response 2 (see above) be reasonable for you?
Hanson: I think the big question is how we go about doing this.
Phillips: would you be comfortable with us moving forwards with this recommendation?
Staver: there isn't a specific path of what we are trying to do.
Phillips: well from the report it could be what do we do to make fish healthy. If we could come up with a better path of whether its water or sediment that contaminants are coming through, would that make it easier for you?
Sexton: I think that would make it easier for us to make a clear decision.
Hanson: If we could understand the impacts on communities, or what affects farmers the most and have it broken down in that way it may be beneficial later on.
Phillips: Are there any fundamental flaws in those responses? Or is the group okay in the direction we are going? Yes, the group is okay with the direction we are going.

Action: The AgWG will review the CBP response, when available, to the published STAC Workshop on contaminants of concern in ag settings and provide feedback to Scott Phillips.

1:45 **BREAK (5min)**

Implementation

1:50 **BMP Implementation: Engaging Opportunities (30 min)** *Emily Trentacoste*

Emily Trentacoste, EPA-CBP, will discuss a possible new project building off results from a CBP co-benefit mapping exercise to identify restoration partners and resources. The project would utilize previous and ongoing work that identifies geographic locations of interest for meeting other goals and outcomes of the 2014 Chesapeake Bay Watershed Agreement. Areas with overlapping interests can signify potential locations where restoration practices would benefit more than just water quality and can therefore help identify non-traditional restoration and funding partners based on those added benefits. Emily is seeking feedback from the AgWG on this project.

Summary

Big Question: Would a project that looks at funding for technical assistance and landowner outreach be useful?

Hanson: It would be useful to get Lee McDaniel's perspective on the existing gaps in conservation districts- what would they want?
Shenk: this project is looking at co-benefits. It would be great if this project could tap into different resources while fulfilling multiple benefits and getting CBP to work more with each other.
Tharpe: Districts needs to look at more diverse groups outside of federal agencies, like private-public partnerships, to keep diversifying your networks.
Staver: the living resource seems like the part that most people are interested.

Action: Provide feedback to Emily Trentacoste (trentacoste.emily@epa.gov) regarding her proposed project to utilize previous and ongoing work identifying geographic locations of interest for meeting other goals and outcomes of the 2014 Chesapeake Bay Watershed Agreement. Emily will come back to the group at a later date with project updated.

2:20 **At-large Election Results and Election of New Leadership (25 min)** *Chair*

Results of the At-Large member selection process will be announced, and the new At-Large members will be confirmed. The AgWG will also be asked to select and approve a new Workgroup leadership based on nominated candidates. The recommendations of the Workgroup will be submitted to the WQGIT for final partnership approval per the governance protocols.

Decision: The AgWG approved with full consensus the six at-large members for the 2020-2021 term.

Decision: The AgWG approved Gary Felton as Chair of the AgWG for the 2020-2021 term.

2:40 **New Business & Announcements (15 min)**

- The National Fish and Wildlife Foundation (NFWF), in partnership with the U.S. Environmental Protection Agency (EPA) and the federal-state Chesapeake Bay Program partnership, is soliciting pre-proposals under the Chesapeake Bay **Innovative Nutrient and Sediment Reduction (INSR) Grants** program to restore water quality and habitats of the Chesapeake Bay and its tributary rivers and streams. Program description here.
    - INSR pre-proposals are due by midnight, **Friday, February 28th, 2020** and must be submitted through NFWF's online application at www.nfwf.org/easygrants.
- The Foundation for Food and Agriculture Research (FFAR) is now accepting pre-proposal applications for the 2020 Seeding Solutions Grant Program, the Foundation's flagship competitive program that funds research solutions in FFAR's six Challenge Areas in collaboration with unique partners. Every year, FFAR funds at least one proposal in each Challenge Area, awarding grantees up to $1 million.
    - https://foundationfar.org/seeding-solutions/
- Non-Urban Stream Restoration Update
    - *There will be a meeting on March 3rd- anyone that is interested in participating please reach out to Loretta Collins and Allie Wagner.*
- Water Quality Goal Implementation Team leadership change

3:00 **Meeting Adjourned**

Meeting Participants

Jason Keppler	MDA
Loretta Collins	UMD
Matt Monroe	WV DA
Hilary Swartwood	CRC
Chris Brosch	DDA
Clint Gill	DDA
Adam Lyon	MDA
Elizabeth Hoffman	MDA
Greg Albrecht	NYS Dept. of Ag and Markets
Amanda Barber	Cortland Co. SWCD District Manager
Frank Schneider	PA State Conservation Commission
Jill Whitcomb	PA DEP
Cindy Shreve	WV DA
Tim Sexton	VA DCR
Marel King	CBC
Kelly Shenk	EPA
Emily Dekar	USC
Barry Frantz	NRCS
Ruth Cassilly	UMD
Jeremy Hanson	VT
Ron Ohrel	American Dairy Association NE
Dave Montali	WV DEP
Ken Staver	UMD
Gary Shenk	USGS
Lee McDonnell	EPA, CBPO
Gopal Bhatt	USGS
Pat Thompson	Energy Works
Scott Phillips	USGS
Jeremy Daubert	VT
Doug Hamilton	Oklahoma State University
Mark Dubin	UMD
Katie Walker	Chesapeake Conservancy
Julie Reichert	NOAA, CRWG Coordinator
Bill Tharpe	MDA
Dr. Gurpal Toor	UMD

Paul Bredwell	U.S. Poultry and Egg Assoc.
Carlington Wallace	ICPRB
Elliot Kellner	WVU